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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/913,576	08/13/2001	Harri Elo	796.396USW1	4187

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EXAMINER

SWERDLOW, DANIEL

ART UNIT	PAPER NUMBER
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2644

DATE MAILED: 12/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/913,576

Applicant(s)

ELO, HARRI

Examiner

Daniel Swerdlow

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 July 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 9,13 and 17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 9,13 and 17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 9 and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Ashley et al. (US 5,528,630).

3. Regarding Claim 9, Ashley discloses a coupler for a communications system in which voice and data signals share a local loop between a central office and a customer premise (i.e., a method for implementing narrowband and broadband services on a transmission link of a telecommunications network) (column 2, lines 16-26). Ashley further discloses the communications path having a characteristic impedance of 600 ohms in the voice band and 100 ohms in the data band (i.e., having a frequency-dependent characteristic impedance) (column 3, lines 16-19). Ashley further discloses voice signals below 4 kHz and data signals above 40 kHz (i.e., transferring signals belonging to a narrowband service in a first frequency range below a given threshold frequency and signals belonging to a broadband service in a second frequency range above said threshold frequency in the transmission link) (column 2, lines 36-41). Ashley further discloses a coupler connected to the tip and ring lines (i.e. connecting a splitter element to the transmission link) (Fig. 1, reference 110, 103). Ashley further discloses a low-pass filter (Fig. 3, reference 312; column 4, lines 17-20) connected between the tip and ring lines and a pair of terminals connected to a low band transceiver (i.e., a low-pass filter block connected between the transmission link and a first interface). Ashley further discloses the low-pass filter

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comprising inductors and capacitors (i.e., a passive low-pass filter) (Fig. 5, reference 503-512; column 4, line 65 through column 5, line 4). Ashley further discloses a high-pass filter (Fig. 3, reference 301; column 4, lines 41-44) between the tip and ring lines and a high band transceiver (i.e., a high-pass filter unit connected between the transmission link and a second interface). As such, Ashley discloses signals relating to narrowband service being separated to the first interface by means of the low-pass filter block and signals relating to broadband service being separated to the second interface by the high-pass filter unit. Ashley further discloses a generalized impedance converter (Fig. 5, reference 502; column 4, lines 61-65) between the low-pass filter and the low-band transceiver (i.e., between the interface of the low-pass filter block on the transmission link side and said first interface). Applicant admits in the response filed 19 July 2004 that a generalized impedance converter is a discrete active impedance converting element (page 11, first complete paragraph). Further, Ashley discloses no external control on the generalized impedance converter.

4. Claim 13 is essentially similar to Claim 9 and is rejected on the same grounds.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ashley in view of Broyde (US Patent 4,794,353).

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7. Regarding Claim 17, as shown above apropos of Claim 9, Ashley anticipates all elements except part of the impedance converting means being implemented by adding at least one resistor element to said network in parallel with capacitors and inductors of the low pass filter. Broyde discloses the use of resistors in parallel with inductors in a low-pass filter (Figs. 3 and 4, reference R₄, column 3, lines 15-18; column 4, lines 59-65). Broyde further discloses that such an arrangement is useful where high frequency impedance is not well regulated in a facility (column 1, lines 7-12) (e.g., telephone lines not designed for data frequencies) and works especially well for blocking frequencies in the 10 kHz to 200 kHz range (column 5, lines 5-6). As stated above, Ashley discloses data transmission in a band above 40 kHz. As such, it would have been obvious to one skilled in the art at the time of the invention to apply the parallel resistance taught by Broyde to the coupler taught by Ashley for the purpose realizing the aforesaid advantages.

Response to Arguments

8. Applicant's arguments with respect to all claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel Swerdlow whose telephone number is 703-305-4088. The examiner can normally be reached on Monday through Friday between 8:00 AM and 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Forrester Isen can be reached on 703-305-4386. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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XU MEI
PRIMARY EXAMINER